Swine Disease Global Surveillance Report

Worldwide pork production is highly interconnected by trade between countries and markets which could increase the risk of introduction of foreign pathogens into the US.





PROJECT

The aim of these reports is to have a system for near real-time identification of hazards that will contribute to the mission of assessing risks to the industry and ultimately, facilitate early detection and identification, or prevent occurrence of events, in partnership with official agencies, and with our international network of collaborators.

Monthly reports are created based on the systematically screening of multiple official data sources, such as government and international organization websites, and soft data sources like blogs, newspapers, and unstructured electronic information from around the world, that then are curated to build a raw repository. Afterward, a group of experts uses a multi-criteria rubric to score each event, based on novelty, potential direct and indirect financial impacts on the US market, credibility, scale and speed of the outbreak, connectedness, and local capacity to respond average is calculated. The output of the rubric is a final single score for each event which then it is published including an epidemiological interpretation of the context of the event.

These communications and the information contained therein are for general informational and educational purposes only and are not to be construed as recommending or advocating a specific course of action.

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Current and previous reports:

 $\underline{www.swinehealth.org/global-disease-surveillance-reports/}$







Swine Disease Global Surveillance Report

Tuesday, October 4, 2022 - Monday, October 31, 2022

Report Highlights

 ASF spreads in the Philippines: Western Visayas had previously been among the last few regions in the country that had remained ASF-free since the first outbreak in July 2019.

Surveillance at Points of Entry

- Pork products seized in Taiwan: Customs officials at the Taoyuan International Airport seized over 180 lbs of Vietnamese pork zongzi (dumplings).
- The Philippines protects its main backyard hog producer region: The ASF task force seized over 1,400 lbs of pork products from regions with confirmed ASF cases in Negros Occidental.
- Thailand authorities intercept smuggling of pork in air passenger luggage: An attempt to smuggle almost 20 lbs of pork sausages from Vietnam was foiled in Bangkok by the Customs Department at the airport.
- Rising concerns in the United Kingdom: Over a single weekend of inspections, 2.5 tonnes of illegal pork products from ASF-affected countries were seized at the port of Dover.

OUTBREAKS BRIEF

| R | Location | Date | Dx | Impact |
|---|---|-----------------|-----|--|
| 2 | lloilo (Western Visayas), The Philippines | 10/16 | ASF | First outbreak in the region - semi-commercial hog farm - affecting 311 hogs |
| 2 | Niassa province, Mozambique | 10/14 | FMD | 42 cases reported and 5340 domestic swine at risk |
| 2 | Eastern Cape and Gauteng provinces, South Africa | 10/8 - 10/13 | FMD | With 16 deaths and 5000 domestic pigs at risk. |
| 1 | Timis county (western region), Romania | 10/10 | ASF | Commercial farm - 39,000 slaughtered |
| 1 | Thrissur district, Kerala state (southwest region), India | 10/12 | ASF | 15 cases in a farm - 48 pigs culled. |
| 1 | Kachin State and Kayah State, Myanmar | 9/30 | ASF | Backyard farms - over 60 pigs dead |
| 1 | Piaui state, Brazil | 10/7 | CSF | Backyard farm - 22 animals affected |





Outbreaks described in the table above are colored according to an assigned significance score. The score is based on the identified hazard and potential to affect the US swine industry. Rank (R) Blue: 1 - no change in status; Red: 2 - needs extra attention as the situation is dynamic; Black: 3 - requires consideration or change in practices to reduce exposure to the US swine industry. A map with the location of the events reported is available at the end of this report.





African Swine Fever

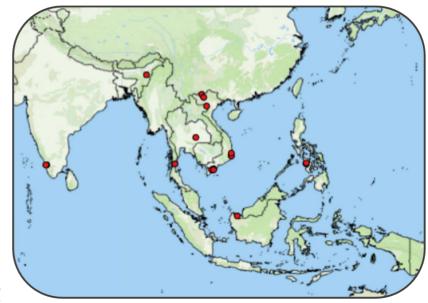
ASIA

In October, six countries - India, Malaysia, The Philippines, Indonesia, Myanmar, and Nepal - reported ASF outbreaks in domestic swine but no official reports in wild boars. (Map 1).

Regional highlights

• The Philippines | October 15: the first ASF case in Western Visayas was confirmed in Iloilo. An outbreak was reported on a semi-commercial hog farm in Oton, causing the death of six hogs. Another 305 hogs from the affected farm have been slaughtered and disposed of by burning and burying. To prevent the spread of the disease, 69 more pigs were culled in the 0.5-kilometer zone from the infected farm. However, on October 24, ASF cases were logged in San Miguel, the neighboring town of Oton: blood samples from four hogs in Barangay San Jose tested positive.

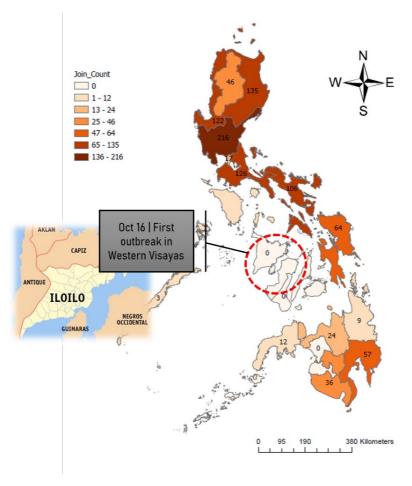
Despite the measures taken, 23 barangays in Oton have confirmed cases of ASF, affecting 63 hog farmers. So far, 614 hogs have been depopulated out of the 1,106 head herd. The remaining will also be subjected to depopulation. The infected or containment area in Oton would be expanded from a one-kilometer radius to seven from ground zero (Map 2).



Map 1. African swine fever situation in Asia: October 27, 2022 (Source: FAO EMPRES-i)

- Malaysia | October 17: an outbreak confirmed in Bau. Samples taken from pigs that recently died at Jalan Semadang-Jambusan in Bau returned positive for ASF. Previously, a pile of 20 carcasses dumped in the area was reported. There are three pig farms nearby within a 10-kilometer radius, which the Department of Veterinary Services currently monitors.
- Myanmar | September 30: a rise in domestic pig deaths caused by ASF in Kachin State. About 50 pigs died in Naungmi Village in Hukawng Valley, located in Tanaing township, Myitkyina District, Kachin State, since the beginning of September. Locals believe the outbreak was caused by the transportation of sick pigs from the lower regions, which died halfway and were dumped near the village. The village of Naungmi has around 1000 households, and almost every household raises pigs. Moreover, more than 10 pigs died in Doraghu village in Demoso Township, Kayah State.





Map 2. African swine fever in the Philippines - Location of the first outbreak in Western Visayas.

Distribution of ASF cases across the country since July 2019

- Nepal | October 3: over 15,000 pigs have died due to the ASF outbreak since March. The
 disease has been reported in Kathmandu, Bhaktapur, Lalitpur, Kavrepalanchok, Chitwan,
 Sunsari, Jhapa, Morang, Bardia, Dang, and Kaski districts.
- India | October 12: ASF reaches Thrissur district, Kerala. The disease was confirmed on a private farm in Cherp after the report of high mortality of pigs. Pigs on the farms in a 1 km radius were culled. On October 13, an alert was raised in another Indian state of Rajasthan after discovering 15 dead pigs in a drain in the Malviya Nagar area of Jaipur. The animal department is actively engaged in an investigation. On October 27 an outbreak was confirmed on a pig farm at Meenachil Panchayat in Kottayam district, state of Kerala. A one-kilometer stretch around the farm has been declared infected, where 48 pigs have been culled as a preventive measure. A 10-kilometer radius around the farm is being closely monitored. The authorities have also shut down shops selling pig meat, and steps have been taken to ensure that no pigs are transported from the infected zone. On October 29 ASF was declared in Thrissur's Kadangode panchayat after more than 40 pigs on the farm died due to the disease. According to local authorities, the pigs within the 1 km radius of the farm will be culled while pigs under the 10 km radius will be kept under surveillance, meaning that more than 600 pigs in 11 farms in the proximity have to be culled.
- Taiwan | October 12: Customs officials at the Taoyuan International Airport seized 90 kg
 of Vietnamese pork zongzi. A total of eight parcels containing pork zongzi (a glutinous rice
 dish) were intercepted at the airport for violations of meat import rules. According to the
 Customs Administration, during the first nine months of 2022, 60 undeclared meat packages
 (mainly sausages and mooncakes) from the Southeast Asian country weighing over 180 lbs





(82.4 kg) were seized. Importing pork products, regardless of the amount, incurs a prison term of seven years and/or a maximum fine of US\$94,164.

- The Philippines | October 23: 666 kilos of pork products seized in Negros Occidental. On October 15-19, the ASF task force confiscated banned products from Iloilo, Cebu, and Manila at various ports. Negros Occidental is the top backyard hog producer in the country. It supplies between 8,000 to 12,000 head to other provinces per month. The province banned the entry of hogs and pork products from Luzon, Mindanao, Eastern Visayas, as well as Panay island and Guimaras, which have confirmed ASF cases. Testing all breeding farms for ASF is seen as one of the most effective ways of controlling the spread of the infection.
- Thailand | October 25: An attempt to smuggle 19.8 lbs (9 kg) of pork sausages from Vietnam was foiled in Bangkok. The Customs Department at the airport confiscated the sausages found in the luggage of a passenger traveling from Hanoi. Travelers are not allowed to bring meat products into Thailand without a valid import permit. Violators face a maximum penalty of a US\$7,436 fine and two years imprisonment.

EUROPE

In October (10/06/2022 - 10/26/2022), three countries (Romania, Serbia, and North Macedonia) reported 28 outbreaks in domestic pigs, compared to 51 outbreaks in seven countries last month. Most outbreaks occurred in Romania (n=23), affecting a large commercial farm.

In wild boars, 281 ASF outbreaks were reported in 12 countries (Bulgaria, Estonia, Germany, Hungary, Italy, Latvia, Lithuania, Poland, Romania, Russia, Serbia, and Slovakia), adding four outbreaks in Estonia to the list of countries reported in the previous month (11 countries, n=297). The top three in terms of the number of outbreaks remain the same: Poland (n=76), Latvia (n=65), and Germany (n=45).

From the beginning of the year till October 22, a total of 453 outbreaks in domestic pigs across 12 countries and 5698 in wild boars across 14 countries were reported in Europe (EU ADIS).



Map 3. African swine fever situation in Europe: October 27, 2022 (Source: FAO EMPRES-i)

Regional Highlights:





- Latvia | October 3: ASF was detected in four wild boars in Gulbene municipality. Among the wild boar population this year, ASF was detected in 872 wild boars in 29 municipalities in 192 parishes of Latvia, as well as affecting six farms with a total of 1,512 domestic pigs.
- Ukraine | October 10: the number of ASF outbreaks declines. In 2022, only seven outbreaks were registered in Ukraine: three on small individual pig farms, two outbreaks in wild boars, and two more involved ASF-infected food. No industrial farm has been affected so far. During the same period last year, 11 outbreaks were reported. The number of ASF outbreaks in Ukraine has been steadily declining since setting the record of 145 cases in 2018. In 2019, it stood at 53, and in 2018 at 28. (Note: Disruption connected with the Russian invasion This report doesn't include uncontrolled territories where the outbreaks were confirmed previously (like Kherson and Zaporizhzhia region) which are currently partly occupied by Russian forces,) Laboratory diagnostics are currently available; still, the number of sample processes may be lower than in previous years.)
- Romania | October 12: ASF outbreak was confirmed at a large pig farm. A commercial
 farm was affected in the western county of Timis, causing the slaughter of 39,000 pigs. Local
 authorities are focusing on protecting two other farms, each with tens of thousands of pigs,
 located nearby.
- Poland | October 19: negative impact of ASF causes termination of Polish farms. Since
 the beginning of 2022, as many as 43,000 Polish farms have been liquidated: on average, 76
 operations per day ceased to exist. Since the beginning of the year, there have been 13
 outbreaks resulting in the culling of 86,022 pigs, compared to a total of 124 outbreaks in 2021.
- United Kingdom | October 24: 2.5 tonnes of illegal pork products from ASF-affected countries were seized at the port of Dover. Dover Port Health Authority inspectors found the illegal meat products after searching 22 vehicles of Romanian, Moldovan, Ukrainian, and Polish origin over a single weekend at the beginning of October. Raw animal products were discovered, loosely stored in carrier bags and paper tissue without temperature control, refrigeration, or labeled identification. The checks follow the introduction of new rules by the government, making it illegal from September to bring pork or pork products weighing over 2 kg into the country unless they are produced to the EU's commercial standards.

Foot and Mouth Disease

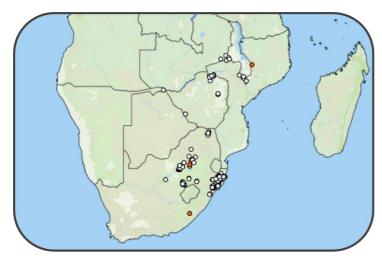
AFRICA

Foot-and-Mouth Disease in Swine

In southern Africa, four FMD events have been reported in domestic swine and three events in wild swine since January 2022. The most recent outbreak (October 14, 2022) was reported in Nakoma, Niassa province, Mozambique, with 42 cases reported and 5340 domestic swine at risk, according to event notifications to EMPRESi. South Africa reported three FMD outbreaks in domestic swine in 2022, with the most recent outbreaks in Eastern Cape and Gauteng (Map 4). The Eastern Cape Outbreak was observed on October 8, 2022, and reported on October 13, 2022, with 16 deaths and 5000 domestic pigs at risk. Gauteng reported two outbreaks, the first on October 13, 2022, with seven cases, five deaths, and 66 pigs at risk. The FMD serotypes responsible for the most recent Eastern Cape and Gauteng outbreaks are unknown. However, an earlier outbreak in Gauteng on July 26, which resulted in 67 deaths, was confirmed to be caused by FMD serotype SAT3.







In 2022, South Africa reported three FMD outbreaks in wild boar. All three outbreaks were caused by FMD serotype SAT2 and occurred in the province of KwaZulu-Natal. All three outbreaks were reported on March 24, 2022, and resulted in the deaths of more than 106 wild boars.

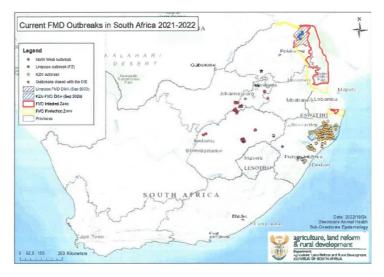
Map 4: Foot-and-mouth disease outbreaks in southern Africa Jan 01 to October 30, 2022. Orange dots show the locations of FMD outbreaks in domestic swine; white dots show the locations of FMD outbreaks in domestic cattle. (Source: FAO EMPRES-i)

Foot-and-Mouth Disease in Cattle

- Zimbabwe | October 12: Lack of vaccines prevents stopping the spread of the disease. According to veterinary officials, the country is experiencing two outbreaks in Mashonaland Central and East. About 80% of the FMD outbreak is caused by illegal cattle movement. The other factors also include transboundary spread and buffalo-cattle interactions. Since the beginning of this year, the department has destroyed 87 cattle and four goats, which were illegally moved. The limited availability of vaccines makes it challenging to contain the outbreak. Vaccines are imported from neighboring Botswana. Emergency control vaccinations are currently introduced within a 10 km radius of the affected areas.
- South Africa | October 7: The minister of Agriculture, Land Reform, and Rural Development has taken the decision to lift the ban on cattle movement by lifting the Foot-and-Mouth Disaster Management Area (DMA) of the Free State, only allowing for farms unaffected by FMD to continue with their business. However, the farms that tested positive for FMD, or are under suspicion for FMD, remain under quarantine. Assessment of the spread of the disease in the affected provinces will be conducted monthly.

According to the <u>report</u> of the Animal Health Directorate, South Africa currently has 176 open FMD outbreaks in the previous FMD-free zone, comprising three outbreak events. The outbreaks affect the Limpopo, North West, Gauteng, Mpumalanga, Free State, and KwaZulu-Natal (KZN) Provinces of South Africa. (Map 5).





Map 5. Reported outbreaks in the previous FMD free zone 2021-2022 (Source: <u>Department of Agriculture</u>, <u>Land Reform and Rural Development</u>, Republic of South Africa)

- Namibia | October 15: another FMD outbreak hits the country. The disease was reported
 in the Zambezi region, located in the extreme northeast of the country, affecting 14 cows
 among 230 susceptible. The areas of Kabbe South and North constituencies have been
 declared FMD-infected areas, while the entire Zambezi region has been declared a disease
 management area.
- Botswana | October 17: a ban on the export of beef to the EU is partially lifted. The move
 follows a two-month ban that followed an outbreak of FMD near the border with Zimbabwe in
 August and the culling of thousands of cows in order to control the outbreak. To resume the
 trade, strict export

requirements will be followed. This includes placing cattle in holdings approved for EU export for a period of 40 days before slaughter. Beef exports will only be allowed from seven of the country's 19 agricultural zones. Meanwhile, Botswana's President announced the slaughter of at least 10,000 cattle in the northeast area to stop the disease from spreading. In September, Botswana partially resumed the beef trade, including live cattle sales to neighboring countries, but there was no export to the EU.



Map 6. Foot-and-mouth disease situation in Africa: October 27, 2022 (Source: FAO <u>EMPRES-i</u>)





• Mozambique | October 24: suspected FMD outbreak in Mecanhelas. At least 42 cattle with symptoms of FMD were reported in the town of Entre Lagos. National Veterinary Directorate personnel are collecting samples and taking measures to prevent the spread of the disease.

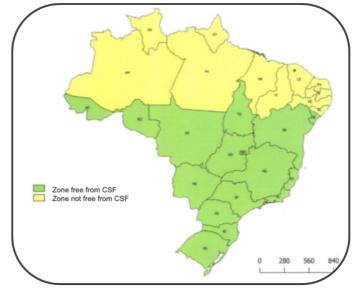
ASIA

- India | October 10: Indian Immunologicals Limited invests in a new unit in Genome Valley to manufacture 300 million doses of FMD vaccine. The company is one of the largest manufacturers of the FMD vaccines globally, and is also a leading supplier of this vaccine to the Government of India's National Animal Disease Control Programme (NADCP). With the establishment of a new unit in Hyderabad, it is planned to double the capacity to produce FMD vaccines to 600 million annual doses. The existing facility in Gachibowli already has a capacity of 300 million doses.
- Indonesia | October 12: 3.85 million farm animals were vaccinated against FMD. According to the task force's report, the vaccinated animals comprise 3,487,873 cows, 71,982 buffaloes, 47,066 sheep, 118,821 goats, and 130,004 pigs. The report showed that the FMD outbreak affected 303 districts and cities in 24 Indonesian provinces. The task force also reported that 549,918 farm animals have contracted FMD so far, out of whom 442,426 have recovered, 85,531 have not recovered, and 9,535 have succumbed to the disease. At least 9,535 animals have died of FMD, comprising 9,168 cows, 220 buffaloes, 46 sheep, and 98 goats. Meanwhile, the number of animals that have been conditionally slaughtered has reached 12,426. As of October 24, 11 provinces (Lampung, West Sulawesi, Bali, Riau Islands, Central Kalimantan, West Kalimantan, South Kalimantan, Jakarta, Banten, South Sumatra, and Aceh) have recorded zero active FMD cases in farm animals. The target is to make 24 provinces free from FMD transmission by November this year due to the G20 Summit scheduled to be held in Bali in November.

Classical Swine Fever

• Brazil | October 7: new outbreak was reported in domestic pigs. In Piaui, CSF was

confirmed on a backyard farm in 12 out of 22 domestic pigs, five of which died. Brazil has been recently recognized (2015-2016) by the World Organisation for Animal Health (WOAH; founded as OIE) with an Free Zone involving 15 states and the Federal District, corresponding to 95% of the industrial production of pigs in the country, and a non-free zone (NFZ), comprised by the North and Northeast regions of the country, with approximately 18% of the national pig herd and 5% of industrial production. In 2019, the Brazil CSF-Free Strategic Plan was created to eradicate the infection from the country's NFZ, since outbreaks in this region present a risk of reintroducing the disease FZ (Map 7).



Map 7. CSF zonification in Brazil





Swine Influenza

- Namibia | October 6: 54 cases out of 190 suspected influenza A viruses of swine cases
 were reported from July to date. According to the health minister's statement, the most
 affected regions are the central Otjozundjopa region and the area surrounding the capital
 Windhoek with 24 positive cases reported in each area. The country experienced a "largescale influenza A viruses of swine" in 2009-10 when over 8,000 suspected cases were
 reported: 102 people tested positive, and one person died.
- India | October 11: Pune reports the most deaths due to H1N1 variant in Maharashtra this year. Thus far, the city claims 46 deaths, followed by 19 in Kolhapur, both in Maharashtra. The state has reported the maximum number of cases, the highest since 2018. However, the mortality rate remained low due to more vigilance and awareness among the people amidst the COVID-19 pandemic. A six-fold increase in the number of cases from 552 on July 30 to 3 477 on September 30, and a 10-times spike in deaths from 20 to 191 during the same period, were registered, compared to 129 infections with three deaths in 2020, which surged to 387 and two, respectively, in 2021.

Editor's note: We cite articles using the information that they contain. Influenza A viruses that normally circulate among swine are called variant viruses if they infect humans. WHO/OIE/FAO standardization announcement from 2014 - LINK

Fact box: Influenza A viruses of swine

Swine influenza is a respiratory disease of pigs caused by type A influenza viruses that regularly cause outbreaks of influenza in pigs. Influenza viruses that commonly circulate in swine are called "swine influenza viruses" or "swine flu viruses." Like human influenza viruses, there are different subtypes and strains of swine influenza viruses.

Influenza A viruses of swine do not normally infect humans. However, sporadic human infections with influenza viruses that normally circulate in swine and not people have occurred. When this happens, these viruses are called "**variant viruses**." They also can be denoted by adding the letter "v" to the end of the virus subtype designation.

In recent years, the main Influenza A viruses of swine circulating in US pigs are: swine triple reassortant (tr) H1N1, trH3N2, and trH1N2. With the exception of the 2009 H1N1 virus, influenza viruses that circulate in swine are very different from influenza viruses that commonly circulate in people.

For more information regarding human infections with variant viruses -- LINK

References:

Recurrent reports reviewed

WOAH - WAHIS interface - Immediate notifications





WOAH - WOAH Asia Regional office

FAO - ASF situation update in Asia & Pacific

DEFRA - Animal conditions international monitoring reports

CAHSS - CEZD Weekly Intelligence Report
European commission - ADIS disease overview

AMERICA

Brazil

CSF

ASIA & OCEANIA

Myanmar

Surge of fatality of pigs due to swine fever in Naungmi village on Ledo Road In Dorokhu village, pigs are sick. More than 10 pigs died in two weeks

Nepal

Over 15,000 pigs died in African swine fever outbreak in Nepal since March

Thailand

K9 beagle sniffs out 9kg of sausages at Bangkok customs, foils smuggling attempt

India

Pune reports most swine flu deaths in Maharashtra this year

Maharashtra records spike in swine flu cases, highest since 2018

Indian Immunologicals to double foot and mouth disease vaccine capacity

ASF confirmed in Thrissur, alert

African Swine Fever suspected in Jaipur, 15 pigs found dead; Animal department engaged in investigation

ASF outbreak in India's Kerala

ASF confirmed in Thrissur's Kadangode; more than 600 pigs to be culled

Indonesia

3.85 mln farm animals vaccinated against FMD

No active FMD cases in 11 provinces: task force

Taiwan

Taiwan customs seizes Vietnamese pork zongzi, slaps heavy fines

Malaysia

DVSS confirms pig carcasses in Bau positive for ASF

The Philippines

Iloilo logs suspected African Swine Fever case

Hog culling start: ASF in Iloilo confirmed; rapid testing of hogs eyed

666 kilos of pork products seized in Negros Occidental

ASF hits another town in Iloilo: PBBM orders DA to test all pig breeding sites in WV

AFRICA

Namibia

Namibia's health ministry says it has confirmed 54 cases of swine flu out of 190 suspected cases

Namibia reports outbreak of foot and mouth disease

South Africa

Ban on movement of cattle lifted

Zimbabwe

Foot and Mouth Disease outbreak; Vet dept struggles to contain spread due to drug shortages

Botswana

Botswana Resumes Beef Exports to EU After Foot-and-Mouth Ban

Botswana Farmers Welcome Lifting of EU Beef Export Ban

Botswana to slaughter 10,000 cattle to fight foot and mouth disease

Mozambique

Niassa. Suspected foot-and-mouth disease outbreak in Mecanhelas

EUROPE

Latvia

African swine fever was detected in four wild boars in the Gulbene municipality

Ukraine

ASF Ukraine: number of outbreaks drops

Romania

Romania confirms African swine fever outbreak at pig farm

Poland

Polish pork producers warn for decline in pork supply

UK

African swine fever worry as Dover authorities seize illegal meat

Serious concerns over biosecurity as illegal pork products discovered at Dover





The GSDMR team compiles information drawn from multiple national (Ministries of Agriculture or Livestock, Local governments, and international sources (WOAH, FAO, DEFRA, EC, etc.), as well as peer-reviewed scientific articles. The team makes every effort to ensure but does not guarantee the accuracy, completeness, or authenticity of the information. The designation employed and the presentation of material on maps and graphics do not imply the expression of any opinion whatsoever on the part of the GSDMR team concerning the legal or constitutional status of any country, territory, or sea area or concerning the delimitation of frontiers.

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